



2003-2005 Water Development Report

AN UPDATE TO THE
1999 STATE WATER MANAGEMENT PLAN

North Dakota State Water Commission
December 2002

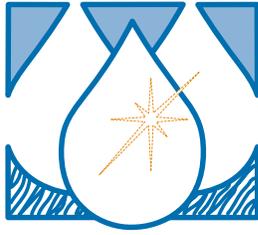


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REPORT**
an update to the
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December 10, 2002

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Introduction

Over the course of the last decade, there has been a change in the way North Dakota's citizens think about their water resources. Simply stated, they have a renewed interest. They understand that for North Dakota to succeed in today's ever-changing economy, we must develop a firm foundation to support the building blocks of our future. Without question, one of the most important elements of that foundation is water, and support of projects that develop and manage our water resources.

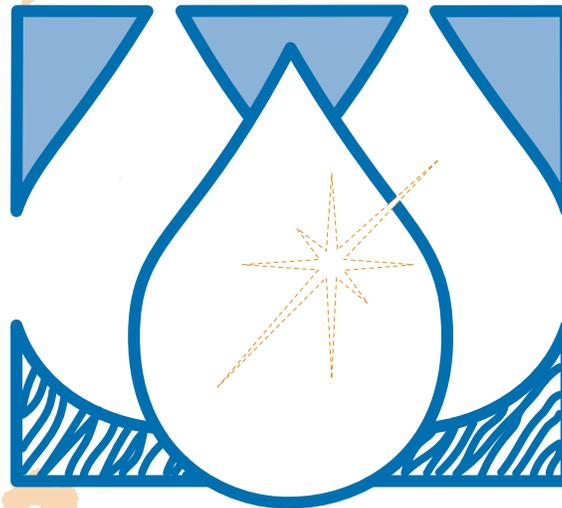
As economic uncertainties continue to persist, the complexities involved in providing quality and sufficient water supplies, flood protection, and other necessary water developments will provide a formidable challenge for North Dakota's elected officials as well as for the State Water Commission (SWC) for many years to come. To prepare for those challenges, and in the best interest of the people of North Dakota, it is advantageous to plan ahead and to map out the best course of action so that North Dakota may realize its full development potential.

Though North Dakota has seen tremendous progress in water development, there still continues to be several unmet needs – all of which are critical to the people and communities they benefit. Recognizing that the first step in meeting those needs is to identify them, the SWC developed this report; the 2003-2005 Water Development Report. It will serve as the primary

component in helping to identify North Dakota's present and future water development needs.

Background

In 1999, the SWC developed the 1999 State Water Management Plan (SWMP). The 1999 plan was by far the most



comprehensive effort ever undertaken in North Dakota to identify the water development needs of the state. In response, the Legislature took notice of the state's growing water project needs by passing SB 2188, which set up the Water Development Trust Fund and provided authority to issue up to \$84.8 million in bonds to fund water projects statewide. In addition, the passage of House Bill 1475 devoted 45 percent of the state's tobacco settlement to the Water Development Trust Fund. The

Legislature's actions clearly provided a solid foundation for funding future water development.

Then, in 2001, an update and supplement to the 1999 plan was developed to provide updated water project information to the 57th Legislative Assembly. The 2001 report provided updated information regarding the state's water development needs and funding abilities at that time. This report will serve a similar purpose for the 2003-2005 biennium.

Purpose and Authority

The purpose of the 2003-2005 Water Development Report is:

- To serve as a supplement to the 1999 State Water Management Plan;
- To provide up-to-date information regarding North Dakota's current and future water development project needs;
- To provide current information regarding North Dakota's ability to fund those water development needs; and
- To serve as a formal request for funding from the Resources Trust Fund.

By virtue of North Dakota Century Code, Section 61-02-14, Powers and Duties of the Commission; and Section 61-02-26, Duties of State Agencies Concerned with Intrastate Use or Disposition of Waters, the Commission is required to develop and maintain a comprehensive water plan for the sound management of North Dakota's water resources.

General Concepts for Funding

Contained in this section is a discussion of the importance of the tobacco settlement in meeting North Dakota's water development needs, and State Water Commission cost-share policy changes since the last SWMP update.

Tobacco Settlement Role in Meeting Future Needs

Without question, one of the most significant advances toward developing North Dakota's water resources came when the 56th Legislative Assembly allocated 45 percent of the tobacco settlement to the Water Development Trust Fund. Once again, it is crucial that the same funding commitment be maintained in the Water Development Trust Fund if North Dakota is to be successful in developing its water resources for current and future generations. Today, as the backlog of unfinished water projects grows, and as dozens of new water project needs begin to surface, continued financial support is needed more than ever. The \$406 million in total water development needs identified for the upcoming 2003-2005 biennium is a testament to the future funding issue we face.

State Water Commission Cost-Share Policy Changes

Vital to the development of most locally sponsored water projects is the SWC's cost-share assistance program. Without cost-share assistance, most rural areas would not have the financial resources available to finance and build critical water supply infrastructure, flood control, and other water projects that support communities and rural areas. Currently, the SWC receives funding to support cost-share efforts through the state's general fund, the Resources Trust Fund, the MR&I program, and the Water Development Trust Fund. The SWC also has the authority to issue revenue bonds for water projects.

Since the development of the 2001 Water Development Biennial Report, several changes have been made to the SWC's cost-share policy. In particular, those changes influence rural flood control, rural ring dikes, and Municipal Rural and Industrial (MR&I) water development projects. The changes were made by the SWC to improve their ability to provide needed cost-share assistance to local project sponsors.

MR&I

On May 1, 2002, the SWC approved a revision to the state's MR&I cost-share policy.

- MR&I projects will be funded at 70 percent, with exceptions up to 75 percent to be considered on a case-by-case basis.

RURAL FLOOD CONTROL

On May 1, 2002, the SWC approved four revisions to the rural flood control cost-share policy.

- Drain reconstruction shall be funded at 35 percent of eligible costs if a sediment analysis prepared by a Registered Professional Engineer is provided, or 30 percent with no sediment analysis. Non-eligible costs include, but are not limited to, maintenance and deferred maintenance.
- The funding limitation for new rural flood control projects was increased from \$200,000 to \$250,000 per project for the 2001-2003 biennium. This policy will be retroactive to include projects approved for funding earlier in the current biennium.
- Conditional cost-share approval of rural flood control projects can now be granted by the SWC with a six-month time limit to achieve a positive local assessment vote. Requests for extensions may be granted on a case-by-case basis.

- The SWC will also now require a discussion of downstream impacts at the project outlet with the need for further analysis considered on a case-by-case basis as determined by the State Engineer. The analysis shall include a determination as to whether or not costs will be incurred downstream as a result of the project.

RURAL RING DIKES

On December 7, 2001, the SWC approved changes to the rural ring dike cost-share policy.

- Expand the current rural ring dike cost-share policy to include all existing occupied rural homes, including those located in rural subdivisions.
- Allow participation by landowners threatened by flooding from either natural or man-made sources.
- For homes constructed after April 2002, provide cost-share assistance only to those participants whose homes are in compliance with local floodplain ordinances. If no local floodplain ordinances apply, an engineer or land surveyor must certify that the house is not located within a 100-year floodplain, or is elevated at least one foot above the 100-year floodplain elevation.
- Require that a professional engineer design or endorse any deviation from approved design standards, including the installation of floodwalls.

Table 1: State Water Commission Cost-Share Percentages

PROJECT TYPE	COST-SHARE PERCENTAGES
Water Supply (MR&I)	70 (75 on a case-by-case basis)
Snagging and Clearing (Natural Streams)	25
Flood Control	50
Recreation	33.33
Rural Ring Dikes	50 (not to exceed \$25,000 per project)
Irrigation	40
Studies	50
New Drain Construction	35
Drain Reconstruction	35 (with) or 30 (without sediment analysis)
Bank Stabilization (Public Lands)	50

- Consider eligible for cost-share assistance only that portion of a ring dike that is necessary to meet approved minimum design standards.
- Require information on the value of the home protected and limit state funding to the value of the home, or \$25,000, whichever is less.
- Require owners of ring dikes to sign waivers stating that they are entirely responsible for maintenance of the dike and are liable for any resulting damages.
- Allow incorporation of a roadway into a ring dike only when permission has been obtained from the entity having jurisdiction over the road and when the roadway section is at a height of at least two feet above the elevation of either the 100-year flood or the 1997 flood, whichever is higher.
- Require that all applicants request cost-share prior to any construction.

The above cost-share changes are reflected in the project lists for the 2003-2005 biennium in the following pages.

Statewide Water Development Program

This section will briefly describe the inventory process used by the SWC Planning and Education Division to identify future water project or program needs. A discussion will also be provided of current water development activities, as well as expected future funding and project needs for the 2003-2005 biennium.

The Inventory Process

As part of the SWC's water planning efforts, the Planning and Education Division once again solicited project and program information from potential project sponsors. The results provide the SWC with an updated inventory of water projects and programs that are expected to come forward for SWC cost-share in the upcoming 2003-2005 biennium and beyond. As in the past, the product of this effort, or this report, becomes the foundation of the State Water Commission's budget request to the Governor and Legislature.

To obtain updated and new project and program information from sponsors, the Planning and Education Division sent project information forms to county water boards, joint boards, and communities. The managers of major water projects, including the Dakota Water Resources Act - Municipal, Rural, and Industrial Program; Northwest Area Water Supply Project; and Southwest Pipeline Project, were also surveyed. Information requested on the forms included general project descriptions, location, permit information, and identification of potential obstacles, among other basic aspects of the projects.

More importantly, sponsors were asked to assign the most realistic start dates possible to projects they expected to present to the SWC for cost-share consideration during the 2003-2005 and later bienniums. They were also asked to identify when a funding commitment from the SWC will be needed; and to identify when state dollars will be necessary for projects or programs to proceed. Project sponsors are expected to complete the project information forms as the *first step* in acquiring SWC cost-share assistance.

As the project information forms were received by the SWC, the information was transferred into the Planning and Education Division's water project database. This provides the SWC with updated project information for older projects and an accounting of new projects that have developed since the last inventory process for the 2001-2003 biennium. The result of this inventory process is a comprehensive list of all water projects throughout North Dakota that are expected to come forward for new or additional cost-share in current and future bienniums. As stated earlier, this is an invaluable tool for budget planning purposes both for the SWC and the Legislature.

A New Database

To improve the accounting, tracking, and overall knowledge of North Dakota's water development projects, a new comprehensive SWC water project database is under development. The new database will combine the Administrative Division's accounting database, the Regulatory Section's cost-share inventory database, and the Planning Division's biennial project inventory database, into one

information source. The resulting database will provide SWC staff, local water managers, and the general public with up-to-date project information. Thus, improving agency efficiency and facilitating public knowledge about the status of projects that affect them and their communities.

Project Inventories

The following tables will provide an inventory of: completed projects, 2001-2003 biennium (Table 2); currently active projects and funding, 2001-2003 biennium (Table 3); future water development needs, 2003-2005 biennium (Table 4); and water development funding needs beyond 2003-2005 (Table 5).

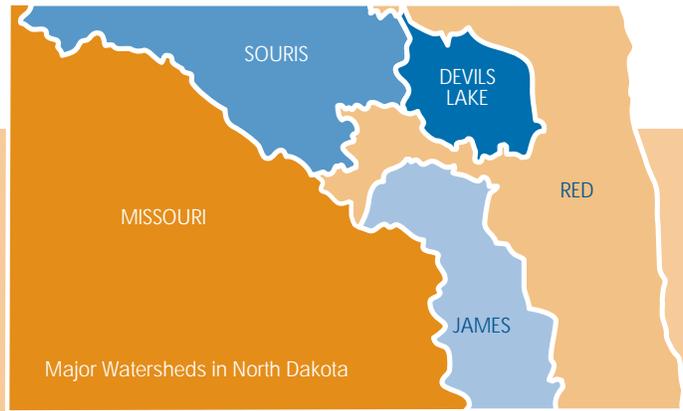
CURRENTLY ACTIVE PROJECTS, 2001-2003 BIENNIUM

The projects and project categories listed in Table 3 represent water development efforts that are being pursued in the current biennium. Several individual projects are listed in the table. However, a number of others fall under project categories, such as irrigation development or general water management, and therefore, are not individually identified in the table. A comprehensive list of all active projects that have been approved by the SWC or State Engineer (SE) can be downloaded from the SWC website at www.swc.state.nd.us.

Table 3 represents the total 2001-2003 project budget, and what the SWC has approved for project funding approximately half way through the biennium. As the table suggests, the SWC had approved about 60 percent of the project budget as of September 2002.

Table 2: Completed Projects, 2001-2003 Biennium

PROJECT NAME	WATERSHED
Big Coulee Dam Repair	Devils Lake
12-digit HU Delineations - Southeast ND	James, Red
Missouri R. Coordinated Resource Mgmt.	Missouri
Nygren Dam	Missouri
Sheep Creek Dam Repair	Missouri
Cass County Drain #35 Backflow Prevention	Red
Cass County Drain #40 Channel Improv.	Red
Digital Aerial Surveying - Laser Terrain Map.	Red
East Snowflake Cr. Outlet Control Structure	Red
Glenfield Water Supply	Red
Golden Lake Control Structure	Red
Meadow Lake Flood Control	Red
Nelson County Culverts County Road #23	Red
Ransom Sargent Rural Water	Red
Red River Wetland and Watershed Study	Red
Richland County Drain #31	Red
Richland County Drain #95	Red
Richland Co. WRD - Antelope Cr. Snag/Clear	Red
Steele County Drain #4	Red
Dead Colt Creek Dam Repair	Red
Red River Basin Board Face to Face Forums	Red, Devils L
Bottineau County Drain #2 Ph. I Reconstruct.	Souris
Long Lake Ord. High Water Mark Invest.	Souris
Minot Flood Study	Souris
Souris River Park Slope Stabilization	Souris
Natural Resources Trust, Devils L. Basin WM	Statewide
ND Water Education Foundation	Statewide



FUTURE WATER DEVELOPMENT NEEDS, 2003-2005 BIENNIUM

The list of projects in Table 4 contains the projects expected to come forward for SWC cost-share in the 2003-2005 biennium. This accounting of projects simply represents a non-prioritized list of needs as submitted by water managers. It does not guarantee in any way that all of the projects listed will receive funding.

The list is organized into eight categories based on SWC cost-share policies, including: water supply, drainage/channel improvements, irrigation, flood control, snagging and clearing, bank stabilization, studies and planning, and multi-purpose projects. The total financial need to implement all of the projects in the 2003-2005 list is at least \$406 million. The state's share of that total is about \$100 million based on current cost-share requirements. The federal government and local project sponsors would be responsible to make up the balance.

It should be recognized that the 2003-2005 totals do not account for projects that may not go forward in the current 2001-2003 biennium and will carry over to the next biennium. As a result, the actual need for the upcoming biennium has the potential to be even greater than portrayed here. In contrast, it should also be noted that water development projects can be delayed as a result of local or federal funding problems, permits, or environmental issues, which can substantially influence the actual need for any given biennium.

WATER DEVELOPMENT FUNDING NEEDS BEYOND 2003-2005

Table 5 represents the expected funding need that was reported by project sponsors by category beyond the 2003-2005 biennium. The projects included in this timeframe were either identified by project sponsors to move ahead beyond 2005, or they were pushed into a later timeframe by SWC staff based on their knowledge of the project.

Table 3: Currently Active Projects and Funding, 2001-2003 Biennium

PROJECT OR CATEGORY	BUDGET	SWC/SE APPROVED
Grand Forks Flood Control	\$ 22,400,000	\$ 22,400,000
Wahpeton Flood Control	1,600,000	1,307,500
Grafton Flood Control	1,500,000	167,000
Fargo Flood Control	5,500,000	0
MR&I	15,000,000	15,000,000
Irrigation Development	5,779,040	3,582,540
General Water Management	9,221,137	5,063,683
Baldhill Dam Flood Control	1,307,516	1,307,516
Maple River Dry Dam	7,710,250	210,750
Eastern Dakota Water Supply	150,000	150,000
Devils Lake Basin Development	4,758,194	811,146
Devils Lake Dike	5,000,000	0
Devils Lake Outlet	10,000,000	1,075,000
Southwest Pipeline Project	8,444,472	8,444,472
Weather Modification	350,000	350,000
Northwest Area Water Supply	204,000	204,000
Total Cost	\$ 98,924,609	\$ 60,073,607

Table 4: Water Development Needs in the 2003-2005 Biennium

Drainage/
Channel Improvement

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Devils Lake	Cavalier	Calio Coulee Channel Improvements	\$ 0	\$ 52,500	\$ 97,500	\$ 150,000
Devils Lake	Cavalier	Nekoma - Billings Drain	0	28,000	52,000	80,000
Devils Lake	Cavalier	North Loma Drain #1	0	21,000	39,000	60,000
Missouri	Morton	Zachmeier Flats Flood Control and Drainage	0	70,000	130,000	200,000
Red	Cass	Buffalo Creek Watershed	0	200,000	371,429	571,429
Red	Cass	Cass County Drain #10	0	400,000	742,857	1,142,857
Red	Cass	Cass County Drain #15	0	150,000	278,571	428,571
Red	Cass	Cass County Drain #18	0	200,000	371,428	571,428
Red	Cass	Cass County Drain #21	0	100,000	185,714	285,714
Red	Cass	Cass County Drain #26	0	150,000	278,571	428,571
Red	Cass	Cass County Drain #27	0	250,000	464,286	714,286
Red	Cass	Cass County Drain #29	0	100,000	185,714	285,714
Red	Cass	Cass County Drain #31	0	150,000	278,571	428,571
Red	Cass	Cass County Drain #34	0	200,000	371,429	571,429
Red	Cass	Cass County Drain #40	0	600,000	1,114,385	1,714,385
Red	Cass	Cass County Drain #46	0	200,000	371,429	571,429
Red	Cass	Cass County Drain #47	0	100,000	185,714	285,714
Red	Cass	Cass County Drain #52	0	50,000	92,857	142,857
Red	Cass	Cass County Drain #NC-2 (23)	0	100,000	185,714	285,714
Red	Richland	Colfax Watershed Project #2 Reconstruction	0	300,000	700,000	1,000,000
Red	Cavalier	Cypress Creek Drain #2	0	17,500	32,500	50,000
Red	Cavalier	Cypress Creek Drain #3	0	12,250	22,750	35,000
Red	Traill	Garfield Drain #32	0	17,000	33,500	50,500
Red	Cavalier	Gordon Drain #1	0	105,000	195,000	300,000
Red	Cavalier	Grey Twp Drain #1	0	12,250	22,750	35,000
Red	Pembina	Kippen Coulee	0	87,500	162,500	250,000
Red	Cass	Lynchburg Channel	0	210,000	390,000	600,000
Red	Cass	North Branch Rush River	0	250,000	464,286	714,286
Red	Richland	Project #14 Reconstruction Phase II	0	60,000	140,000	200,000
Red	Ransom	Route 1 - Tri-County	0	405,300	752,700	1,158,000
Red	Ransom	Route 2 - Tri-County	0	551,950	1,025,050	1,577,000
Red	Ransom	Route 3 - Tri-County	0	13,200	19,800	33,000
Red	Richland	Route 4 - Tri-County	0	4,800	7,200	12,000
Red	Richland	Route 5 - Tri-County	0	14,400	21,600	36,000
Red	Ransom, Richland	Route 6 of Tri-County Flood Control, SWC #1894	0	383,600	712,400	1,096,000
Red	Richland	Route 7 & 8 of Tri-County Flood Control	0	577,500	1,072,500	1,650,000
Red	Traill	Rust Drain #24	0	16,000	24,000	40,000
Red	Cass	South Branch Rush River	0	200,000	3,714,229	3,914,229
Red	Steele, Traill	Steele, Traill Drain #2	0	210,000	390,000	600,000
Red	Traill	Traill County Drain #59	0	70,000	130,000	200,000
Red	Cass	Upper Elm River Channel Improv. - Gunkel Twp	0	195,000	362,143	557,143
Red	Cass	Upper Elm River Channel Improv. - Page & Dows Twps	0	100,000	185,714	285,714
Red	Traill	Viking Lindass Drain #44	0	17,500	32,500	50,000
Red	Walsh	Walsh County Drain #5	0	12,000	45,500	57,500
Red	Walsh	Walsh County Drain #67	0	35,087	24,385	59,472
Total			\$0	\$6,999,337	\$16,480,176	\$23,479,513

Water Supply

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST**	TOTAL COST
Devils Lake	Ramsey	Devils Lake: Emergency Water Source & Treat.	\$10,500,000	\$ 0	\$4,500,000	\$15,000,000
Devils Lake	Cavalier	Langdon Rural Water Ph. IV: Munich/Cando	4,200,000	0	1,800,000	6,000,000
James	LaMoure	Southeast Regional Expansion: LaMoure, Oakes	2,956,650	0	985,550	3,942,200
Missouri	McKenzie	McKenzie County Rural Water	689,500	0	295,000	984,500
Missouri	Stutsman	Medina: New Municipal Well	112,000	0	48,000	160,000
Missouri	Williams	Ray & Tioga Water Well	56,000	0	24,000	80,000
Missouri	Multi-county	Southwest Pipeline Project	6,000,000	6,800,000	1,250,000	14,050,000
Missouri	Williams	Tioga Rural Water	5,950,000	0	2,550,000	8,500,000
Missouri	Williams	Williston Regional Water Treatment Plant	5,000,000	0	8,300,000	13,300,000
Red	Richland	Abercrombie: Water Storage Reservoir	420,000	0	180,000	600,000
Red	Cass	Argusville: Water Reservoir	420,000	0	180,000	600,000
Red	Cass	Arthur: Water Treatment	525,000	0	225,000	750,000
Red	Richland	Christine: Water Storage Reservoir	350,000	0	150,000	500,000
Red	Griggs	Cooperstown: Water Treatment Plant Modif.	420,000	0	180,000	600,000
Red	Pembina	Dakota Water Users Ag. Distribution Expan.	840,000	0	360,000	1,200,000
Red	Multi-county	Dakota Water Users Distribution Expansion	1,365,000	0	585,000	1,950,000
Red	Barnes	Dazey: Water Supply Improvement	262,500	0	112,500	375,000
Red	Ransom	Enderlin: Water System Improvements	3,150,000	0	1,350,000	4,500,000
Red	Cass	Gardner: Water Storage Reservoir	245,000	0	105,000	350,000
Red	Walsh	Grafton Intake Replacement	84,000	0	36,000	120,000
Red	Walsh	Grafton Water Treatment Plant Improvements	2,392,320	0	1,025,280	3,417,600
Red	Grand Forks	Grand Forks Clearwell/Pump Station & Trans.	*	*	*	*
Red	Grand Forks	Grand Forks Interim Residuals Management	*	*	*	*
Red	Grand Forks	Grand Forks Raw Water Intake & Trans. Lines	*	*	*	*
Red	Grand Forks	Grand Forks Water Distribution System Improv.	0	0	2,167,194	2,167,194
Red	Wells	Harvey: Water System Improvements	3,150,000	0	1,350,000	4,500,000
Red	Traill	Hillsboro Water Supply and Treatment Expan.	5,355,000	0	2,295,000	7,650,000
Red	Grand Forks	Larimore Water Treatment Plant	0	0	1,450,000	1,450,000
Red	Cass	Mapleton: Water Storage	455,000	0	195,000	650,000
Red	Pembina	North Valley Water Ag. Distribution Expan.	268,800	0	115,200	384,000
Red	Pembina	North Valley Water Distribution Expan. - Pembina	567,000	0	243,000	810,000
Red	Cass	Page: Water System Improvements	280,000	0	120,000	400,000
Red	Walsh	Park River Water System Improvements	2,712,000	0	848,000	3,560,000
Red	Cass	Reiles Acres: New Water Supply	280,000	0	120,000	400,000
Red	Cass	Reiles Acres: Water Storage	350,000	0	150,000	500,000
Red	Richland	Southeast Regional Expan. - Hankinson, Lidgerwood, Wyndmere	921,375	0	307,125	1,228,500
Red	Traill	Traill Rural Water - Galesburg Supply	886,900	0	380,100	1,267,000
Red	Walsh	Walsh Rural Water: Water Treat. Plant Improv.	1,536,319	0	658,423	2,194,742
Red	Cass	West Fargo: Water System Improvements	2,590,000	0	1,110,000	3,700,000
Souris	Bottineau	All Seasons Water Users Sys. IV: Ph. II Improv.	2,310,000	0	990,000	3,300,000
Souris	Bottineau	Bottineau: Water Supply & Treatment Improv.	1,050,000	0	450,000	1,500,000
Souris	McHenry	Karlsruhe Water System Improvements	239,050	0	102,450	341,500
Souris	Pierce	New Well Field & Transmission Line - Rugby	1,308,141	0	560,632	1,868,773
Souris	Multi-county	Northwest Area Water Supply	19,300,000	2,400,000	10,700,000	32,400,000
			\$89,497,555	\$9,200,000	\$48,553,454	\$147,251,009

* Funding for the Grand Forks clearwell pump station (\$2.3 million), raw water intake (\$19.6 million), and the interim residuals management (\$9.5 million) is included in the Grand Forks/East Grand Forks flood control total.

** In some instances, all or portions of local funding for water supply projects may come from the Drinking Water State Revolving Loan Fund, or Rural Development loans.

Flood Control

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Devils Lake	Multi-county	Devils Lake Basin Development	\$ 0	\$ 5,258,000	\$ 0	\$ 5,258,000
Devils Lake	Ramsey	Devils Lake Dike	0	5,000,000	0	5,000,000
Devils Lake	Multi-county	Devils Lake Outlet	0	25,000,000	0	25,000,000
Red	Traill	Augustad Dam Rehabilitation	0	250,000	250,000	500,000
Red	Cass	Fargo Ridgewood Flood Control	5,542,000	1,555,000	1,325,000	8,422,000
Red	Cass	Fargo Southside Flood Control	8,500,000	14,750,000	14,750,000	38,000,000
Red	Walsh	Grafton Flood Control	6,142,500	1,653,750	1,653,750	9,450,000
Red	Grand Forks	Grand Forks/East Grand Forks Flood Control*	63,823,000	15,600,000	20,937,000	100,360,000
Red	Cass	Lower Sheyenne River Ring Dikes	0	200,000	200,000	400,000
Red	Cass	Maple River Dam	0	2,875,000	2,875,000	5,750,000
Red	Cass	Maple River Farmstead Ring Dikes	0	100,000	100,000	200,000
Red	Pembina	Neche Flood Control	1,820,650	490,000	490,000	2,800,650
Red	Cass	North Cass Farmstead Ring Dikes	0	80,000	160,000	240,000
Red	Richland	Project #39 Culvert Resizing	0	21,700	40,300	62,000
Red	Cass	Red/Wild Rice River Farmstead Ring Dikes	0	1,500,000	1,500,000	3,000,000
Red	Pembina	Renwick Dam Rehabilitation	1,950,000	367,500	682,500	3,000,000
Red	Cass	Rush River Farmstead Ring Dikes	0	75,000	75,000	150,000
Red	Cass, Richland	Sheyenne River to Wild Rice River Diversion	0	150,000	150,000	300,000
Red	Cass	Swan Creek Watershed	0	750,000	750,000	1,500,000
Red	Pembina	Tongue River Cutoff	0	122,500	227,500	350,000
Red	Cass	Upper Sheyenne River Ring Dikes	0	200,000	200,000	400,000
Red	Richland	Wahpeton Flood Control	4,888,000	1,292,500	1,292,500	7,473,000
Souris	Ward	Des Lacs Upper Basin Storage	0	240,000	240,000	480,000
Souris	Ward	Puppy Dog Coulee Detention Ponds	0	800,000	1,200,000	2,000,000

* Funding for the Grand Forks Clearwell pump station (\$2.3 million), raw water intake (\$19.6 million), and the interim residuals management (\$9.5 million) is included in the Grand Forks/East Grand Forks flood control total.

\$92,666,150 \$78,330,950 \$49,098,550 \$220,095,650

Snagging/Clearing

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Richland	Antelope Creek Snagging and Clearing	\$ 0	\$ 18,750	\$ 56,250	\$ 75,000
Red	Pembina	Cart Creek Snagging and Clearing	0	87,500	262,500	350,000
Red	Traill	Elm River Snagging and Clearing	0	125,000	375,000	500,000
Red	Cass	Maple River Snagging and Clearing	0	50,000	150,000	200,000
Red	Cass	Red River Snagging and Clearing	0	50,000	150,000	200,000
Red	Cass	Rush River Snagging and Clearing	0	20,000	60,000	80,000
Red	Cass	Sheyenne River Snagging and Clearing	0	75,000	225,000	300,000
Red	Steele	Steele County Snagging and Clearing #1	0	24,860	74,580	99,440
Red	Richland	Wild Rice River Snagging and Clearing	0	11,250	33,750	45,000
Total			\$0	\$462,360	\$1,387,080	\$1,849,440

Bank Stabilization

WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Cass	Red River Bank Stabilization	\$ 0	\$ 50,000	\$ 50,000	\$ 100,000
Red	Cass	Sheyenne River Bank Stabilization	0	50,000	50,000	100,000
Red	Cass	Wild Rice River Bank Stabilization	0	15,000	15,000	30,000
Total			\$ 0	\$115,000	\$ 115,000	\$ 230,000

			Irrigation			
WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Statewide	Multi-county	AgPACE	\$0	\$1,000,000	\$0	\$1,000,000

			Multi-Purpose			
WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Missouri	Morton	Harmon Lake	\$ 4,000,000	\$ 500,000	\$ 1,000,000	\$ 5,500,000
Missouri	Multi-county	Missouri River Management	1,000,000	1,000,000	0	2,000,000
Statewide	Multi-county	ND Cloud Modification	0	436,000	869,000	1,305,000
Total			\$5,000,000	\$1,936,000	\$1,869,000	\$8,805,000

			Studies/Planning			
WATERSHED	COUNTY NAME	PROJECT	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Red	Walsh	Channel #3 Lower Forest River	\$ 0	\$ 10,000	\$ 10,000	\$ 20,000
Red	Multi-county	Eastern Dakota Water Supply Study	1,000,000	150,000	0	1,150,000
Red	Sargent	Sargent County Drain Study	0	50,000	50,000	100,000
Red	Barnes	Up. Maple R. Watershed Floodwater Retention Study	0	980,000	980,000	1,960,000
Statewide	Multi-county	Effects of Cloud Seeding on Rainfall	0	135,000	0	135,000
Statewide	Multi-county	Effects of Cloud Seeding on Ranching	0	19,000	0	19,000
Statewide	Multi-county	ND Hail Climatology and Evaluation of Effects of Cloud Seeding on Hail	0	52,000	0	52,000
Statewide	Multi-county	Section 404 Assumption	0	200,000	0	200,000
Total			\$1,000,000	\$1,596,000	\$1,040,000	\$3,636,000

Table 4 Cont.: Summary of Water Development Needs, 2003-2005

PROJECT CATEGORY	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Bank Stabilization	\$ 0	\$ 115,000	\$ 115,000	\$ 230,000
Drainage/Channel Improvements	0	6,999,337	16,480,176	23,479,513
Flood Control	92,666,150	78,330,950	49,098,550	220,095,650
Irrigation	0	1,000,000	0	1,000,000
Multi-Purpose	5,000,000	1,936,000	1,869,000	8,805,000
Snagging & Clearing	0	462,360	1,387,080	1,849,440
Studies & Planning	1,000,000	1,596,000	1,040,000	3,636,000
Water Supply	89,497,555	9,200,000	48,553,454	147,251,009
TOTAL	\$188,163,705	\$99,639,647	\$118,543,260	\$406,346,612

Table 5: Water Development Funding Needs Beyond 2003-2005

PROJECT CATEGORY	FEDERAL COST	STATE COST	LOCAL COST	TOTAL COST
Bank Stabilization	\$ 0	\$ 1,840,000	\$ 1,840,000	\$ 3,680,000
Drainage/Channel Improvements	0	16,817,500	31,163,014	47,980,514
Flood Control	12,552,500	38,918,750	38,988,750	90,460,000
Irrigation	71,400,000	9,800,000	128,400,000	209,600,000
Multi-Purpose	0	1,472,000	3,137,000	4,609,000
Snagging & Clearing	0	2,576,250	7,728,750	10,305,000
Studies & Planning	0	250,000	250,000	500,000
Water Supply	193,528,080	3,050,000	98,250,292	294,828,372
TOTAL	\$277,480,580	\$74,724,500	\$309,757,806	\$661,962,886

Water Project Funding

North Dakota funds a majority of its water projects through the SWC. Funding that is funneled through the SWC for water development comes from several sources including: the State's General Fund, the Resources Trust Fund, the MR&I program, and the Water Development Trust Fund. In addition to these sources, the SWC is also authorized to issue revenue bonds for water projects, and the SWC has partial control of the Drinking Water State Revolving Loan Fund.

General Fund

The Office of Management and Budget recommended elimination of all general fund money for the agency for the 2001-2003 biennium. The Legislature did restore general fund money for the operations of the agency, but then transferred \$9.7 million from the Water Development Trust Fund to the State General Fund. This transfer effectively eliminated the agency's funding assistance from the general fund. It is unknown whether general fund money without a corresponding transfer from the Water Development Trust Fund will be provided in the 2003-2005 biennium.

MR&I

A main source of funding for water supply development in North Dakota is the Dakota Water Resources Act - Municipal, Rural, and Industrial Water Supply Program (MR&I). The federal grant funding is through the Bureau of Reclamation. Rural Development has provided the majority of loans to cover the local share.

The 1986 Garrison Reformulation Act authorized a federal MR&I grant program of \$200 million; all but \$5 million has been obligated to date. Efforts to obtain additional federal funding authorization for the MR&I program were successful under the Dakota Water Resources Act of 2000. The Act provides resources for general MR&I projects, the Northwest Area Water Supply Project, the Southwest Pipeline Project, and a project to address water supply issues in the Red River Valley. An additional \$600 million was authorized, which includes \$200 million for state MR&I, \$200 million for Indian MR&I, and \$200 million for Red River Valley water supply.

Annual MR&I funding is dependent on U.S. Congressional appropriation, and thus, varying annual appropriations result in project delays. As of September 2002, \$13 million in federal funds had been approved for North Dakota's MR&I program for Federal Fiscal Years 2001 and 2002.

Resources Trust Fund

Section 57-51.1-07.1 (2) of the North Dakota Century Code requires that "every legislative bill appropriating monies from the Resources Trust Fund, pursuant to subsection one, must be accompanied by a State Water Commission report." This report, the 2003-2005 Water Development Report, satisfies that requirement for requesting funding from the Resources Trust Fund for the 2003-2005 biennium.

The Resources Trust Fund (RTF) is funded with 20 percent of the revenues from the oil extraction tax. A percentage of the

Resources Trust Fund has been designated by constitutional measure to be used for water-related projects and energy conservation. The SWC budgets money for cost-share based on a forecast of oil extraction tax revenue for the biennium, which is provided by the Office of Management and Budget.

Revenues into the RTF for the current biennium are expected to total \$8.2 million. Future revenues from the oil extraction tax are highly dependent on world oil prices, which makes it difficult to predict future funding levels. The SWC estimates new revenues of \$8.6 million for the 2003-2005 biennium from oil extraction.

Additional revenue into the RTF will come from Southwest Pipeline reimbursements, MR&I program loan repayments (which amount to \$1 million per biennium through year 2017), interest, and oil royalties. The total RTF revenue available for water development during the 2003-2005 biennium will total about \$10.5 million.

Water Development Trust Fund

Senate Bill 2188 set up a Water Development Trust Fund as a primary means of repaying the bonds it authorized. House Bill 1475 allocated 45 percent of the funds received by the state from the 1998 tobacco settlement into the Water Development Trust Fund. Revenues into the Water Development Trust Fund for the current biennium are expected to total

almost \$24 million. The SWC estimates revenues of \$20.6 million per biennium for the 2003-2005 and 2005-2007 bienniums. Revenues are projected to increase to \$33.1 million per biennium for the 2007-2009 through 2015-2017 bienniums and then fall back to \$23.6 million for the 2017-2019 through 2023-2025 bienniums. Payments into the fund are scheduled through 2025 at a level based on tobacco consumption and inflation (Table 6).

Because the SWC did bond against these revenues, \$5.4 million is needed each biennium to make bond payments through the 2019-2021 biennium. In addition the SWC has included additional bond proceeds of \$60 million in its 2003-2005 budget request. Biennial payments on this bond issue are estimated at \$11.6 million each biennium, and would be paid through the 2023-2025 biennium. It is currently projected that the revenues into the fund from July 2003 through June 2025 will exceed bond payments by about \$145 million.

Bonding

The SWC has bonding authority (NDCC 61-02-46) to issue revenue bonds of up to \$2 million for projects. The Legislature must authorize revenue bond authority beyond \$2 million per project. In 1991, the Legislature authorized full revenue bond authority for the Northwest Area Water Supply (NAWS) project, in 1997 it authorized \$15 million of revenue bonds for the Southwest Pipeline Project, and in 2001 it raised the Southwest Pipeline authority to \$25 million. The North Dakota Constitution requires general obligation bond issues greater than \$2 million to be secured by first mortgages upon real estate or upon real and personal property of state owned utilities, enterprises, or industries.

Table 6: Projected Water Development Trust Fund Schedule Through 2025

Fiscal Year	Tobacco Revenue	Debt Retirement	Agency Operations	Available Balance
2002	\$ 11,900,000	\$ 2,700,000	\$ 4,850,000	\$ 4,350,000
2003	11,900,000	2,700,000	4,850,000	4,350,000
2004	10,300,000	2,700,000	0	7,600,000
2005	10,300,000	8,500,000	0	1,800,000
2006	10,300,000	8,500,000	0	1,800,000
2007	10,300,000	8,500,000	0	1,800,000
2008	16,550,000	8,500,000	0	8,050,000
2009	16,550,000	8,500,000	0	8,050,000
2010	16,550,000	8,500,000	0	8,050,000
2011	16,550,000	8,500,000	0	8,050,000
2012	16,550,000	8,500,000	0	8,050,000
2013	16,550,000	8,500,000	0	8,050,000
2014	16,550,000	8,500,000	0	8,050,000
2015	16,550,000	8,500,000	0	8,050,000
2016	16,550,000	8,500,000	0	8,050,000
2017	16,550,000	8,500,000	0	8,050,000
2018	11,800,000	8,500,000	0	3,300,000
2019	11,800,000	8,500,000	0	3,300,000
2020	11,800,000	8,500,000	0	3,300,000
2021	11,800,000	8,500,000	0	3,300,000
2022	11,800,000	5,800,000	0	6,000,000
2023	11,800,000	5,800,000	0	6,000,000
2024	11,800,000	5,800,000	0	6,000,000
2025	11,800,000	0	0	11,800,000
Totals	\$ 324,900,000	\$ 170,000,000	\$ 9,700,000	\$ 145,200,000

Note: The above estimates do not reflect a transfer of Water Development Trust Fund monies to the General Fund for SWC operation beyond the current biennium.

The SWC was authorized to issue up to \$84.8 million dollars in appropriation bonds under provisions of SB 2188. The Legislature's intent was to partially fund flood control projects at Grand Forks, Devils Lake, Wahpeton, and Grafton, and to continue funding for the Southwest Pipeline Project. In March 2000, the SWC issued bonds generating \$27.5 million, thus reducing available bonding authority to \$57.3 million. SB 2188 also recognized the need to provide funding for other projects identified in the 1999 SWMP in future bienniums. In response to that, the 2001 Legislature authorized \$20 million of bonding authority for statewide water development projects.

SWC bonding requirements for the 2003-2005 biennium were outlined in the Water Development Trust Fund section.

The Drinking Water State Revolving Loan Fund

An additional source of funding for water development projects not directly administered by the SWC is the Drinking Water State Revolving Loan Fund (DWSRLF). Funding is distributed in the form of a loan program administered by the Environmental Protection Agency through the North Dakota Department of Health (Department). The DWSRLF provides below market-rate interest loans to public water systems for capital improvements aimed at increasing public health protection and compliance under the federal Safe Drinking Water Act.

The SWC's involvement with the DWSRLF is two-fold. First, the Department must administer and disburse funds with the approval of the SWC. Second, the Department must establish assistance priorities and expend grant funds pursuant to the priority list for the drinking water treatment revolving loan fund, after consulting with and obtaining the SWC's approval.

The process of prioritizing new or modified projects is completed on an annual basis. Each year, the Department provides an Intended Use Plan, which contains a comprehensive project priority list and a fundable project list. As of 2002, the comprehensive project priority list includes 68 projects with a cumulative total project funding need of \$169.7 million. The fundable list includes \$67.6 million for fiscal years 1997 through 2002. Available funding for the DWSRLF program in the 2003-2005 biennium is anticipated to be approximately \$19 million.

Other Federal Funding

With regard to other federal funding, the U.S. Army Corps of Engineers provides significant assistance to North Dakota for flood control projects. The Environmental Protection Agency, U.S. Bureau of Reclamation, U.S. Geological Survey, and the Natural Resources Conservation Service also contribute to the state's water development.

Funding Priorities for 2003-05 Biennium

Table 7: Comparison of Prioritized Project Needs with Total Water Development Needs from SWMP Database 2003-2005 Biennium

Outlined here is what the SWC and ND Water Coalition believe to be the best course of action for water development in the state. This section discusses the state's priority water development efforts and funding for the 2003-2005 biennium. The priorities are primarily based on the SWC's budget submitted to the Office of Management and Budget.

Biennial Water Development Project Budget

State Water Commission staff along with a ND Water Coalition task force developed appropriate funding levels for specific projects or types of projects in the 2003-2005 biennium. The projects identified as priorities have state cost-share expectations of approximately \$44 million. However, it should be noted that the \$44 million in priority need represents less than half of the actual biennial state funding need identified by project sponsors in the recently updated SWMP project database (Table 7).

To meet the financial commitment these projects require, in addition to meeting funding commitments from the previous biennium and bond repayments, the SWC must bond for \$60 million during the 2003-2005 biennium. This is in addition to maintaining historic levels of funding from the MR&I program, General Fund, Resources Trust Fund, and full use of the Water Development Trust Fund. As Table 8 suggests, the SWC's total financial need is approximately \$101 million for the 2003-2005 biennium.

PROJECT CATEGORY	PRIORITIZED NEED*	SWMP NEEDS
Devils Lake Outlet	\$ 10,000,000	\$ 25,000,000
Devils Lake Basin Development	500,000	5,258,000
Devils Lake Dike	—	5,000,000
Eastern Dakota Water Supply	150,000	150,000
Flood Control	21,655,000	37,726,250
General Water Management	1,800,000	14,463,397
Irrigation	1,000,000	1,000,000
Missouri River Management	100,000	1,000,000
Municipal, Rural, & Industrial	1,000,000	—
Northwest Area Water Supply	2,400,000	2,400,000
Southwest Pipeline	5,000,000	6,800,000
Weather Modification	350,000	642,000
Section 404	200,000	200,000
TOTAL	\$ 44,155,000	\$ 99,639,647

* Priorities are for new funding only.

Project Descriptions

As Table 8 shows, North Dakota's prioritized water development funding needs are grouped into several main categories. The projects contained in each of those categories are explained below.

DEVILS LAKE

It has been determined that there is no single solution to the flooding problems in the Devils Lake region. Rather, a three-pronged approach, including infrastructure protection, upper-basin management, and an outlet to the Sheyenne, together, are the only means of solving the areas flooding problems. The \$10 million request for new funding in addition to \$9 million in carry-over, will be used to help fund portions of the outlet. The additional

\$500,000 will go toward other basin management efforts. The total estimated state funding required for an outlet is \$25 million.

EASTERN DAKOTA WATER SUPPLY

Funding in the amount of \$150,000 is requested to cost-share with the U.S. Bureau of Reclamation in funding a water supply assessment of the Red River Valley. This assessment will help to identify the best course(s) of action to meet the valley's ever increasing water supply needs.

GRAND FORKS FLOOD CONTROL

Work continues in both Grand Forks and East Grand Forks to construct permanent flood protection structures throughout the

Table 8: Funding of Biennial Water Development Priorities
2003-2005 Biennium

PRIORITIZED PROJECTS	STATE COSTS (in millions)	COMMENTS
Devils Lake Outlet	\$ 10.0	Total state need is \$25 million.
Devils Lake Basin Development	0.5	
Devils Lake Dike	—	
Eastern Dakota Water Supply	0.15	
Grand Forks Flood Control	15.6	Spends original \$52 million.
Wahpeton Flood Control	1.3	Spends original \$3.4 million.
Grafton Flood Control	(1.25)	Grafton project may be discontinued.
Fargo Flood Control	5.5	Total state need exceeds \$16 million.
Maple River Dam	0.5	
General Water Management	1.8	\$2.5 million of 2001-2003 not obligated.
Irrigation	1.0	
Missouri River Management	0.1	
Municipal, Rural, & Industrial	1.0	Advance of federal MR&I funds.
Northwest Area Water Supply	2.4	Advance of federal MR&I funds.
Southwest Pipeline	5.0	Medora-Beach pipeline and Phase I rural.
Weather Modification	0.35	
Section 404	0.2	
PROJECT SUB-TOTAL	\$ 44.1	
SWC Operation	10.0	
Bond Payments	11.3	\$5.4 million plus payment on new bond issue.
2001-2003 Obligations*	35.7	Funding obligations from previous biennium.
EXPENDITURE TOTAL**	\$ 101.1	

REVENUE SOURCES	AVAILABLE 2003-2005 (in millions)	COMMENTS
Resources Trust Fund	\$ 10.5	Primarily Oil Extraction Tax - 20%.
Water Development Trust Fund	20.6	State Tobacco Settlement - 45%.
Bonding	60.0	As needed to cover the difference.
REVENUE TOTAL	\$ 91.1	

Note: Priorities are for new funding only.

* Funding obligations from the 2001-2003 biennium must be added to accurately portray 2003-2005 expenditures.

** Flood Emergency Deficiency Payments totaling \$11 million are anticipated to come out of the 2001-2003 budget, however, carryover of a portion of those payments may result in an increase to the 2003-2005 budget expenditures.

community. The proposed project consists of levees and a floodwall set back from the river. In addition, stabilization of an existing dam, removal of a former railroad bridge, interior flood

control features, numerous road and railroad closures, extension and expansion of an existing diversion channel, and construction of a new diversion channel with associated structural features, are

part of the project. When construction is completed, both Grand Forks, North Dakota and East Grand Forks, Minnesota will be protected from flood events at least equal to the 1997 flood.

Dike construction in Grand Forks is proceeding in phases. Depending on the availability of funds, the last phases are scheduled for completion in December 2004. The Grand Forks flood control project will require \$15.6 million in state funds during the 2003-2005 biennium to fulfill the entire \$52 million state funding needed to complete the project.

WAHPETON FLOOD CONTROL

Wahpeton flood control efforts consist of a permanent levee system that will protect most of the city, and flood easements to keep breakout flood flows from being blocked in the future. Like most major flood control projects currently underway in North Dakota, the Wahpeton project is proceeding under Section 205 Authority of the U.S. Army Corps of Engineers. The feasibility study was completed in September 2000, and levee construction is slated to begin in late 2003, with completion sometime in late 2004.

In order for the U.S. Army Corps of Engineers to begin construction, both the Wahpeton and Breckenridge levee projects must be poised to proceed simultaneously. State funding in the amount of \$1.29 million is requested for the Wahpeton project during the 2003-2005 biennium. This will fulfill the maximum of \$3.4 million in state funding the project can receive.

FARGO FLOOD CONTROL

Fargo's new flood control efforts primarily revolve around two major projects - the Ridgewood and Southside flood control projects. Total state cost-share required for the projects is just over \$16 million. A total of \$11 million is included for both projects for the two bienniums spanning 2001-2005. The remaining share will be requested in the 2005-2007 biennium.

The Ridgewood project will consist of a dike/floodwall along the Red River from 15th Avenue North through the Ridgewood Addition (which is residential) and the Veteran's Administration Hospital, to 21st

Avenue North. Total state cost-share required is in the amount of \$1.55 million. The Ridgewood project is proceeding under Section 205 Authority of the U.S. Army Corps of Engineers. The feasibility study is in progress, with completion scheduled for February, 2003. The federal interest report showed a strong benefit-cost ratio for the project. Construction on the dike/floodwall could begin in 2004 or 2005.

The Southside flood control project received \$5.5 million during the previous legislative session. However, project costs have risen since previous estimates. Now, the estimated total state cost-share required is \$14.75 million. The Southside flood control project will protect portions of south Fargo from flooding from the Red, Wild Rice, and Sheyenne Rivers. A dike and diversion channel will be constructed to intercept overland floodwater south of town. The project will also include backup protection and a pump station at Rose Coulee near Highway 81. Construction could begin in the spring of 2003.

MAPLE RIVER DAM

Maple River Dam will be a 70-foot high earthen embankment dry dam capable of retaining 60,000 acre-feet of floodwater. State cost-share in the amount of \$500,000 is requested for this project during the 2003-2005 biennium. The total cost of the project is estimated to be \$20.8 million, with eligible state costs of \$10.4 million. During the 2001-2003 biennium, \$7.7 million was earmarked for this project.

GENERAL WATER MANAGEMENT PROJECTS

General water management projects include rural flood control, snagging and clearing, channel improvements, recreation, planning, and studies. The recently completed update to the SWC's water project database suggests there is a \$14.4 million funding need for general water projects in the upcoming biennium.

Clearly, the availability of sufficient funding prohibits the state from providing cost-share to meet all of the general project funding needs. As a result, \$1.8 million in new funding is being requested to fund a portion of the state's general projects that are ready to proceed.

IRRIGATION

The \$1 million request for irrigation will fund the continued development of North Dakota's AgPACE program. The AgPACE program provides low-interest financing to on-farm businesses. The funds are used to buy down the interest rate on loans that have been approved by a local lender and the Bank of North Dakota. It may be used for any business, except traditional production agriculture, which is integrated into the farm operation and is used to supplement farm income. The development of irrigation qualifies for the program.

MISSOURI RIVER MANAGEMENT

The BOMMM Joint Water Resources Board, which consists of Burleigh, Oliver, Morton, Mercer, and McLean Counties, is moving ahead with the next phase of a coordinated resource management plan for the Garrison reach of the Missouri River. The \$100,000 funding request for that effort will help the BOMMM Board develop a conceptual plan, which will address several key policy and framework issues - eventually to be used in the development of a full comprehensive management plan.

MUNICIPAL, RURAL, AND INDUSTRIAL WATER SUPPLY

As indicated by project sponsors, there are 38 MR&I projects ready to proceed in the 2003-2005 biennium with a total financial need of \$135 million. Beyond the 2003-2005 biennium, MR&I funding needs approach \$300 million.

An advance of federal MR&I funds in the amount of \$1 million is being requested for the MR&I program during the upcoming biennium. As indicated by the

SWC project inventory process for this report, financial needs far greater than \$1 million exist among several MR&I projects. However, no specific projects have been prioritized above others to receive a portion of that funding.

Currently, there are several MR&I projects moving forward. The Ramsey Rural Expansion, and Tri-County Rural Water are under construction, and feasibility studies are underway or completed for Williams Rural Water, McLean-Sheridan Rural Water, and Stutsman Rural Water.

NORTHWEST AREA WATER SUPPLY

The Northwest Area Water Supply Project (NAWS) would receive \$2.4 million in state funding. The project budget is \$30 million, composed of \$19.2 million in federal funds, \$10.2 million in local funds, and \$400,000 in state funds. In the event that the federal funds are not received, the \$2 million will allow construction to proceed, although on a much reduced scale.

Planned construction during the biennium includes approximately 23 miles of pipeline, a three million-gallon water storage reservoir, and a pump station. Construction of these items will keep the project on its present five-year schedule of getting Missouri River water to Minot. When completed, NAWS will

provide up to 26 million gallons of Missouri River water per day to approximately 63,000 citizens in northwest North Dakota. The total estimated project cost for NAWS is \$145 million.

SOUTHWEST PIPELINE PROJECT

The Southwest Pipeline Project would receive \$5 million in state funding. This funding will be used to construct the main transmission facilities to serve the cities and rural users in the Medora-Beach phase of the project and construct a second reservoir at Davis Butte north of Dickinson. The cost of these features is \$6.8 million. The remainder will either come from federal funding, bonds, or a reallocation of state funds. The total cost estimate of the Medora-Beach phase is \$18 million, and construction is projected to take three to four years. Federal funding will be sought to construct the rural distribution facilities associated with this phase.

The Medora-Beach phase will include service to the cities of Beach, Golva, and Sentinel Butte as well as 300-400 rural water users. The main transmission facilities will be extended from Belfield to Beach. Construction plans, while not complete, include 47 miles of 10- and 12-inch pipeline, water storage reservoirs at Belfield, Fryburg, and Beach, and two booster pump stations. The second reservoir at Davis Butte will provide operational storage for the north zone of the Southwest Pipeline Project.

WEATHER MODIFICATION

The \$350,000 funding request is for operational cloud seeding costs with counties participating in the North Dakota Cloud Modification Project. The Atmospheric Resource Board currently cost-shares approximately 35 percent of operational costs with participating counties paying the remaining 65 percent. The 2001-2003 biennium saw technological updates, which improved program safety and logistics. The funding should allow the program to continue at its current level of capability for the 2003-2005 biennium, however, county funding levels will likely have to increase.

SECTION 404 ASSUMPTION

A total of \$800,000 was allocated for the 2001-2003 biennium for the development of a state regulatory program leading to assumption of the Section 404 program currently administered by the U.S. Army Corps of Engineers. In order to meet the required 95 percent budget, reductions were taken in this program, leaving a total of \$625,656 to be carried over to the 2003-2005 biennium. The SWC has requested an optional adjustment to replace the \$174,344 and another \$200,000 to bring the total funding available for this program up to \$1,000,000 for the 2003-2005 biennium. The original estimate of \$800,000 to run the program was developed several years ago. Thus, the \$1,000,000 is a more accurate estimate of anticipated costs.